

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-019467**Date Inspected:** 17-Jan-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1300**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** Jesus Cayabyab**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Section**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Craig Hager was on site at the job site between the times noted above.

This QA Inspector was on site to randomly observe Quality Control (QC) personnel perform Non-Destructive Testing (NDT) and to monitor American Bridge/Fluor (ABF) welding operations.

The following observations were made:

1) At weld joint 8E/9E -B, inside the OBG section: ABF welding personnel Fred Kaddu (#2188) was observed using the Shielded Metal Arc Welding (SMAW) process for repair welding. QC Inspector Jesus Cayabyab was monitoring the work.

2) At weld joint 8EPP61.5E2-SW, outside the OBG section: ABF welding personnel Jin Pei Wang (#7299) was observed using the SMAW process for production welding. QC Inspector Jesus Cayabyab was monitoring the work.

3) At weld joint 8E/9E – E1 and E2, outside the OBG section: ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) were observed setting up equipment begin production welding.

4) At weld joint 9E/10E- E1 and E2, outside the OBG section, ABF welding personnel Rick Clayborn (#2773) was observed working on the in process fit up of the weld joint.

5) At weld joint 8W/9W-F, inside the OBG section: ABF welding personnel Jorge Lopez (#6149) was observed

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using the SMAW process for production welding. QC Inspector Fred Von Hoff was monitoring the work.

6) At weld joint 8W/9W-F, inside the OBG section: ABF welding personnel Sang Tao Huang (#3794) was observed using the Flux Cored Arc Welding (FCAW) process for production welding. QC Inspector Fred Von Hoff was monitoring the work.

7) At weld joint 9W/10W-D1 and D2, inside the OBG section: ABF welding personnel James Zhen (#6001) was observed using the Submerged Arc Welding (SAW) process for production welding. QC Inspector Fred Von Hoff was monitoring the work.

At weld joint 8E/9E -B, inside the OBG section this QA Inspector observed ABF welding personnel Fred Kaddu (#2188) using the Shielded Metal Arc Welding (SMAW) process for repair welding. Prior to the start of repair welding this QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) use the carbon arc process to remove the defect. After grinding the excavation area this QA Inspector randomly observed QC Inspector Jesus Cayabyab perform a visual and Magnetic Particle Testing (MT) of the excavation area. QC Inspector Jesus Cayabyab informed this QA Inspector the area was accepted and the first cycle of repair (R-1). This QA Inspector performed a visual verification noting the location as follows: Y-480 (190 mm length, 21 mm width and 21 mm depth). Prior to the start of repair welding this QA Inspector randomly observed ABF welding personnel Fred Kaddu (#2188) using a gas torch to preheat the area and QC Inspector Jesus Cayabyab use an electronic gauge to verify the preheat was greater than 150°F. QC Inspector Jesus Cayabyab also verified the following welding parameters 125 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed at this location appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D15-1002-Repair and the contract requirements.

At weld joint 8EPP61.5E2-SW, outside the OBG section this QA Inspector observed ABF welding personnel Jin Pei Wang (#7299) using the SMAW process for production welding. QC Inspector Jesus Cayabyab was monitoring the work. This QA Inspector observed the repair welding was located at Y-435 and performed a random verification of the welding parameters observing the following; 154 amperes using a 4.0 diameter E7018H4R electrode. The work observed at this location appeared to comply with ABF-WPS-D15-1001-Repair and the contract requirements.

At weld joint 8E/9E – E1 and E2, outside the OBG section this QA Inspector observed ABF welding personnel Rory Hogan (#3186) and Jeremy Dolman (#5042) were in the process of setting up ventilation, welding and preheating equipment in preparation to begin production welding.

At weld joint 9E/10E- E1 and E2, outside the OBG section this QA Inspector randomly observed ABF welding personnel Rick Clayborn (#2773) and various helpers working on the fit up of the weld joint.

At weld joint 8W/9W-F, inside the OBG section this QA Inspector observed ABF welding personnel Jorge Lopez (#6149) using the SMAW process for production welding at the lower transition area. QC Inspector Fred Von Hoff was observed monitoring the work. This QA Inspector performed a random verification observing the following welding parameters; 128 amperes using a 3.2 mm diameter E7018H4R electrode. The work observed appeared to comply with ABF-WPS-D15-1040B-Rev-1 and the contract requirements.

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At weld joint 8W/9W-F, inside the OBG section this QA Inspector randomly observed ABF welding personnel Sang Tao Huang (#3794) using the FCAW process on the track system for production welding. This QA Inspector randomly observed QC Inspector Fred Von Hoff verify the following welding parameters; 255 amperes and 23.9 volts at a travel speed of 300 mm per minute. The work observed appeared to comply with ABF-WPS-D15-3040A-3 and the contract requirements.

At weld joint 9W/10W-D1 and D2, inside the OBG section this QA Inspector randomly observed ABF welding personnel James Zhen (#6001) using the SAW process on a track system for production welding. This QA Inspector performed a random verification of the welding parameters observing the following; 560 amperes and 32.5 volts at a travel speed of 381 mm per minute. This QA Inspector randomly observed QC Inspector Fred Von Hoff was monitoring the work at this location. The work observed by this QA Inspector at this location appeared to comply with ABF-WPS-D15-4042B-1 and the contract requirements.

Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Hager,Craig	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer
